

CLAIMS

What is claimed is:

1. A musically resonant apparatus with continuously variable resonances for increasing the tonal complexity and quality of live and recorded musical instruments, comprising:

- a. two or more resonators with at least one of said resonators a movable resonator,
- b. one or more means for immobilizing the position of said movable resonator,
- c. one or more means of coupling said apparatus to a host component selected from the group consisting of vibration sensitive or microphonic, said host component found in the chain of equipment between a musician and a listener,

whereby, many more people than ever before can simply and inexpensively improve the tonality of any musical instrument without changing equipment, making expensive or intrusive modifications to their equipment, or using undesirable phase shifting electronic equalization.

2. An apparatus as in claim 1, wherein said chain of equipment is selected from the group consisting of musical instruments, musical instrument amplifiers, recording equipment, mixing equipment, mastering equipment, playback equipment, or connecting cables.

3. An apparatus as in claim 2, wherein said means of coupling is selected from the group consisting of direct mechanical coupling, or indirect mechanical coupling through an intermediary directly coupled to said host component.

2010091020 030402

4. An apparatus as in claim 3, wherein said resonators include at least one movable inner resonator and two outer resonators having inner gripping surfaces for the purpose of gripping both said movable inner resonator and said host component.

5. An apparatus as in claim 4, wherein one or more means of adjustable fastening supplies the gripping force necessary to provide said means for immobilizing and also provides one of said one or more means of coupling.

6. An apparatus as in claim 5, wherein said outer resonators are wood, and said movable inner resonator is rod-shaped, and said means of adjustable fastening is comprised of a machine screw and a nut.

7. An apparatus as in claim 6, wherein one of said outer resonators is slotted and is thereby a moveable resonator.

8. An apparatus as in claim 3, wherein said resonators are a plurality of same-shaped flat plates, and said means for immobilizing is comprised of an adjustable fastener piercing said plates at right angles to the plane of said flat plates, allowing said plates to freely rotate about the axis of said adjustable fastener.

9. An apparatus as in claim 8, wherein one of said one or more means of coupling is the force of gravity.

20140209-0217T600T

10. An apparatus as in claim 9, wherein said adjustable fastener is mounted off center in the case of circular-shaped said flat plates.

11. An apparatus as in claim 9, wherein said flat plates are wood and triangular in shape, and said adjustable fastener is comprised of a machine screw and a nut.

12. An apparatus as in claim 3, wherein said resonators are comprised of one or more support resonators freely pierced by a plurality of rod-shaped movable resonators.

13. An apparatus as in claim 12, wherein said means for immobilizing is comprised of a plurality of adjustable fasteners in each said support resonator, one each of said adjustable fasteners located adjacent to each of said plurality of movable resonators.

14. An apparatus as in claim 13, wherein said apparatus is metal, and the adjustable fasteners are set screws.

15. An apparatus as in claim 14, wherein one of said one or more means of coupling is the force of gravity.

16. An apparatus as in claim 3, wherein said resonators are comprised of a bar-shaped resonating resonator holder and one or more moveable resonators, and said means for immobilizing is one or more adjustable fasteners.

2010-03-04-10:02

17. An apparatus as in claim 16, wherein both said resonator holder and said moveable resonator are bar-shaped and slotted and made of wood, said moveable resonator is appreciably shorter than said fixed resonator, and said adjustable fastener is comprised of a bolt and a nut with a plurality of washers.

18. An apparatus as in claim 17, wherein said resonator holder includes a T-slot for attaching an additional apparatus as in claim 3.

19. An apparatus as in claim 18, wherein one of said one or more means of coupling is the force of gravity.

20. An apparatus as in claim 3, wherein said resonators are held together with one or more means of fastening and are comprised of constant width crescent-shaped flat plate resonators with smoothly rounded ends.

21. An apparatus as in claim 20, wherein one or more of said crescent-shaped resonators is movable.

22. An apparatus as in claim 21, wherein said crescent-shaped movable resonators are slotted and shorter in chord length than said crescent-shaped resonators that are un-slotted.

2010091020-030402

23. An apparatus as in claim 22, wherein said apparatus has at one end of the un-slotted crescent-shaped resonators, and between them a means of spacing, and at the other end an adjustable means of fastening that provides both a means for immobilizing and the coupling of said apparatus to a cylindrical portion of said host component by rotating at least one of said crescent-shaped movable resonators so that at least a majority of the circumference of said cylindrical portion is engaged by said apparatus.

24. An apparatus as in claim 23, wherein said apparatus is made from metal and said adjustable fastener is comprised of a machine screw and a nut.

25. An apparatus as in claim 3, wherein said resonators are comprised from a fixed length of insulated wire tied into a knot leaving lengths of wire available on each side of said knot available for soldering into said host component.

26. An apparatus as in claim 25, wherein said means of immobilization is selected from the group consisting of friction or glue.

27. An apparatus as in claim 26, wherein one of said one or more means of coupling is the force of gravity.

28. A method of increasing the tonal complexity and quality of musical instruments that is simple but powerful, by using a musically resonant apparatus with one or more continuously variable resonances in an adjustment procedure comprising the steps of:

20140201 02076001

selecting an appropriate version of said apparatus with musically relevant resonances for the musical situation at hand, and;

coupling said appropriate version of apparatus to a relevant host component for the musical situation at hand found in the chain of equipment between a musician and a listener, said chain of equipment selected from the group consisting of musical instruments, musical instrument amplifiers, recording equipment, mixing equipment, mastering equipment, playback equipment, or connecting cables, said relevant host component selected from the group consisting of vibration sensitive or microphonic, and; playing and listening to the tone of the musical instrument, and;

adjusting one or more frequencies of resonance, playing and listening to said tone of said musical instrument again, repeating as necessary until said adjustments provide the best tonal complexity and quality for the listener.

29. A method as in claim 28, wherein for stringed instruments the adjustment capabilities of said apparatus are multiplied, comprising the steps of:

waiting ten days after said adjustment procedure is first performed, and; marking the positions and extensions of said apparatus from a suitable reference point onto a suitable medium, referring to said positions and extensions as tonality 1, and;

repeating said adjustment procedure, and; marking the new positions and new extensions of said apparatus from a suitable reference point onto a second suitable medium, referring to said new positions and new extensions as tonality 2, and;

10091020-030402

alternating on a timely basis between said tonality 1 and said tonality 2.

30. A method of increasing the tonal complexity and quality of musical instruments that is simple but powerful, by building at least one continuously variable movable resonator into a host component found in the chain of equipment between a musician and a listener, said chain of equipment selected from the group consisting of musical instruments, musical instrument amplifiers, recording equipment, mixing equipment, mastering equipment, playback equipment, or connecting cables, said relevant host component selected from the group consisting of vibration sensitive or microphonic.

10091020-030402